

AMENDMENT AND RESPONSE

Serial Number: 09/748,754

Filing Date: December 26, 2000

Title: SYSTEM AND METHOD FOR CARDIAC RHYTHM MANAGEMENT WITH SYNCHRONIZED PACING PROTECTION PERIOD

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18. (Amended) The device of claim 17 [further comprising delivering] wherein the controller is programmed to deliver a safety pace to the rate chamber if the synchronized chamber pace is inhibited by the synchronized chamber protection period.

20. (Amended) The device of claim 19 wherein a pace to the synchronized chamber may be triggered by [a] the synchronized chamber sense and wherein the synchronized chamber protection period starts only after a specified delay from such a triggering event, which allows triggered pacing but prevents pacing during the vulnerable period of the synchronized chamber.

REMARKS

Applicant has reviewed the office action dated July 18, 2002, and the references cited therewith. Claims 1-24 are pending and were rejected on various grounds, each of which is addressed below.

Rejection Under 35 U.S.C. § 112

In the office action, claims 4, 5, 10, 12, 14, 15 and 20 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The amendments contained herein are believed to overcome the rejections.

Rejections Under 35 U.S.C. § 102

In the office action, claims 1 - 23 were rejected under 35 U.S.C. § 102(b) as being anticipated by Thompson et al. (U.S. Patent No. 5,902,324), and claims 1, 2, 6, 9, 11, 12, 16, 19 and 21 - 24 were rejected under 35 U.S.C. § 102(b) as being anticipated by Kieval et al. (U.S. Patent No. 5,507,782). The rejections are traversed and reconsideration is respectfully requested.

Claims 1 and 11

Applicant is unable to find a teaching or suggestion in either Thompson or Kieval for

pacing a synchronized heart chamber upon expiration of an escape interval in accordance with a synchronized pacing mode based upon events in a rate heart chamber and initiating a synchronized chamber protection period of predetermined duration after a synchronized chamber sense during which a pace to the synchronized chamber scheduled by the synchronized pacing mode is inhibited while the escape interval continues to run, as recited by amended claim 1. Applicant is also unable to find a teaching or suggestion in either Thompson or Kieval of a cardiac rhythm management device which is programmed to pace a synchronized heart chamber upon expiration of an escape interval in a accordance with a synchronized pacing mode based upon events in a rate heart chamber, and which is further programmed to initiate a synchronized chamber protection period of defined duration after a synchronized chamber sense during which a pace to the synchronized chamber scheduled by the synchronized pacing mode is inhibited while the escape interval continues to run, as recited by amended claim 11. Reconsideration and withdrawal of the rejections is respectively requested.

Claims 2-10 and 12-20

Claims 2-10 and 12-20 recite additional limitations to the patentable subject matters recited by claims 1 and 11, respectively, which applicant asserts to be neither taught nor suggested by Thompson or Kieval. Reconsideration and withdrawal of the rejections is respectively requested.

Claims 21-24

Applicant is unable to find a teaching or suggestion in either Thompson or Kieval for pacing a heart chamber asynchronously at a selected rate but inhibiting pacing of the chamber during a protection period that is initiated by a pace or sense in the chamber as recited by claim 21. In particular, applicant finds no teaching in either reference relating to asynchronous pacing. Applicant also asserts that the recitations of dependent claims 22-24 represent further patentable limitations to the subject matter recited by claim 21. Reconsideration and withdrawal of the rejections is respectively requested.

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Rejections Under 35 U.S.C. § 103

In the office action, claim 24 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Thompson et al. (U.S. Patent No. 5,902,324) in view of Kieval (U.S. Patent No. 5,507,782). As stated above, applicant is unable to find a teaching or suggestion in either Thompson or Kieval for pacing a heart chamber asynchronously at a selected rate but inhibiting pacing of the chamber during a protection period that is initiated by a pace or sense in the chamber as recited by claim 21. Applicant further finds no teaching or suggestion in the cited references for varying the pacing rate in accordance with measurements from an exertion level sensor in that context, as recited by claim 24. Reconsideration and withdrawal of the rejections is respectively requested.

CONCLUSION

Claims 1-24 are presently pending, with claims 1-5, 10-15, 18 and 20 having been amended herein. Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney (612 373-6912) to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,
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Date

Dec. 18, 2002

By

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Commissioner of Patents, Washington, D.C. 20231, on this 18 day of December, 2002.

Name

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Signature

[Signature]